

COLLABORATION

## Delivering a tailored battery test system for EVs

Keysight Technologies has announced a collaboration with Jiyun Technologies to develop and deliver a tailored battery test system for electric vehicles (EVs). The battery system includes CAN interfaces.



Keysight battery test system at Jiyun  
(Source: Keysight)

Range limitations and safety concerns remain consumer obstacles for purchasing electric vehicles, said Keysight in its press release. To address these concerns and facilitate the rapid launch of new electric vehicles, solid testing, and performance verification of battery systems is paramount. Keysight and Jiyun Technologies have joined forces to address these concerns, they continued explaining.

Keysight delivered the tailored battery test system to Jiyun Technologies, which includes the company's regenerative power supplies (RPS7900 series), data acquisition system (DAQ973A), CAN communication interfaces, and other hardware products. The dedicated test software leveraged in the battery test system was adopted from Keysight's Pathwave software portfolio. The custom system can reach a maximum output voltage of 1000 V, a current level of up to 540 A, and a maximum power level of 180 kW.

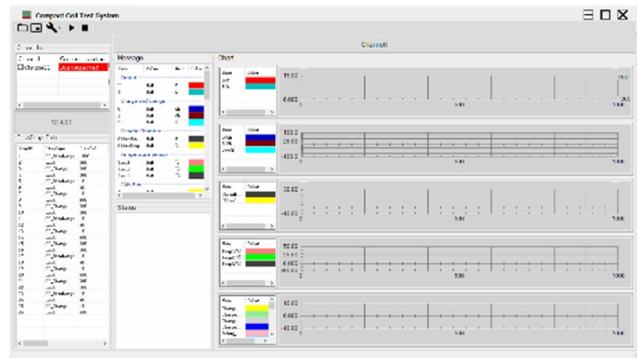
"New electric vehicles are developing rapidly and batteries, as the heart of electric vehicles, need to be taken seriously," said Xue Xianglei, R&D director at

Jiyun Technology. "Jiyun is grateful to Keysight for providing a high-efficiency battery test system, which will help accelerate the launch of new products."

In addition to collecting basic information such as battery voltage, current, and thermal data, the battery management system (BMS) is also integrated into the communication structure to gather data and provide access to all parameters through a single software instance.

Keysight said, they also delivered a solution based on regenerative power components to achieve 90 % power efficiency that reduced operational costs while minimizing heat dissipation, as well as reducing the associated costs of required cooling systems.

"The testing needs for electrical vehicles will pose a challenge for the foreseeable future and depending on specific customer needs, solution offerings need to be adaptable," stated Jian-Rui Ma, China business manager for the Automotive and Energy business unit at Keysight Technologies. "We appreciate the opportunity and challenge to work with Jiyun Technologies to develop a solution that is tailored to their specific requirements."



Keysight battery test system software used by Jiyun (Source: Keysight)

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